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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/698,903B

DATE: 10/01/2001

TIME: 13:39:15

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\10012001\I698903B.raw

ENTERED

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3 <110> APPLICANT: Weston, et al.
5 <120> TITLE OF INVENTION: MALE-STERILE BRASSICA PLANTS AND METHOD FOR PRODUCING SAME
7 <130> FILE REFERENCE: 514412-2020.1
9 <140> CURRENT APPLICATION NUMBER: 09/698,903B
10 <141> CURRENT FILING DATE: 2000-10-27
12 <150> PRIOR APPLICATION NUMBER: 09/430,437
13 <151> PRIOR FILING DATE: 1999-10-29
15 <160> NUMBER OF SEQ ID NOS: 14
17 <170> SOFTWARE: PatentIn version 3.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 5865
21 <212> TYPE: DNA
C--> 22 <213> ORGANISM: Artificial Sequence ✓
24 <220> FEATURE:
25 <221> NAME/KEY: misc_feature
26 <222> LOCATION: (1)..(5865)
27 <223> OTHER INFORMATION: DNA sequence of regions comprised between the T-DNA border ✓
repeat
28     s of plasmid pTCO113
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34 gtcgataaga aaaggcaatt tgtagatggt aattcccatc ttgaaagaaa tatagttaa      120
36 atatattattg ataaaataac aagtcaggta ttatagtcca agcaaaaaca taattttatt      180
38 gatgcaagtt taaattcaga aatatttcaa taactgatta tatcagctgg tacattgccg      240
40 tagatgaaag actgagtgcg atattatgtg taatacataa attgatgata tagctagctt      300
42 agctcatcgg gggatcctag aacgcgtgat ctcatgctc ggtgacgggc aggaccggac      360
44 ggggcggtac cggcaggctg aagtccagct gccagaaacc cacgtcatgc cagttcccgt      420
46 gcttgaagcc ggccgcccgc agcatgccgc ggggggcata tccgagcgcc tctgtcatgc      480
48 gcacgctcgg gtcgttgggc agcccgatga cagcgaccac gctcttgaag cctgtgcct      540
50 ccagggaactt cagcagggtg gtgtagagcg tggagcccag tcccgtccgc tgggtggcggg      600
52 gggagacgta cacggtcgac tcggccgtcc agtcgtaggc gttgcgtgcc ttccaggggc      660
54 ccgcgtaggc gatgccggcg acctcgccgt ccacctcggc gacgagccag ggatagcgct      720
56 cccgcagacg gacgaggctg tccgtccact cctgcggttc ctgcggctcg gtacggaagt      780
58 tgaccgtgct tgtctcgatg tagtggttga cgatggtgca gaccgcccgc atgtccgcct      840
60 cgggtggcag gcggaatgct gccgggcgtc gttctgggtc cattgttctt ctttactctt      900
62 tgtgtgactg aggtttggtc tagtgctttg gtcactata tataatgata acaacaatga      960
64 gaacaagctt tggagtgatc ggagggtcta ggatacatga gattcaagtg gactaggatc      1020
66 tacaccgttg gattttgagt gtggatatgt gtgaggtaa ttttacttgg taacggccac      1080
68 aaaggcctaa ggagagggtg tgagaccctt atcggttga accgctggaa taatgccacg      1140
70 tggaagataa ttccatgaat cttatcgtta tctatgagtg aaattgtgtg atggtggagt      1200
72 ggtgcttgct ctttttactt gcctgggtgga cttggccott tcttatggg gaatttatat      1260
74 tttacttact atagagcttt catacctttt ttttaccttg gatttagtta atatataatg      1320
76 gtatgattca tgaataaaaa tgggaaattt ttgaatttgt actgctaaat gcataagatt      1380
78 aggtgaaact gtggaatata tatttttttc atttaaaagc aaaatttgcc ttttactaga      1440
80 attataaata tagaaaaata tataacattc aaataaaaat gaaaataaga actttcaaaa      1500
82 aacagaacta tgtttaatgt gtaaaagatta gtcgcacatc aagtcactctg ttacaatatg      1560
84 ttacaacaag tcataagccc aacaaaagtt gcacgtctaa ataaactaaa gagtccacga      1620
86 aaatattaca aatcataagc ccaacaaagt tattgatcaa aaaaaaaaaa cgcccaacaa      1680

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88 agctaaacaa agtccaaaaa aaactttctca agtctccatc ttcctttatg aacattgaaa 1740
90 actatacaca aaacaagtca gataaatctc tttctgggcc tgtcttccca acctctaca 1800
92 tcaactccct atcggattga atgttttact tgtacctttt ccgttgcaat gatattgata 1860
94 gtatgtttgt gaaaactaat agggttaaca atcgaagtca tggaatatgg atttggtcca 1920
96 agattttccg agagctttct agtagaaagc ccatcaccag aaatttacta gtaaaaataaa 1980
98 tcaccaatta ggtttcttat tatgtgccaa attcaataa attatagagg atatttcaaa 2040
100 tgaaaacgta tgaatggtat tagtaaattg tcaggtaaga cattaaaaaa atcctacgtc 2100
102 agatattcaa ctttaaaaaa tcgatcagtg tggaattgta caaaaatttg ggatctacta 2160
104 tatatatata atgctttaca acacttggat ttttttttgg aggctggaat ttttaactca 2220
106 catatttggt ttggccatgc accaactcat tgtttagtgt aatactttga ttttgtaaaa 2280
108 tatatgtgtt cgtgtatat tgtataagaa tttctttgac catatacaca cacacatata 2340
110 tatatatata tatatattat atatcatgca cttttaattg aaaaaataat atatatatat 2400
112 atagtgcatt ttttctaaca accatatatg ttgcgattga tctgcaaaaa tactgctaga 2460
114 gtaatgaaaa atataatcta ttgctgaaat tatctcagat gttaagattt tcttaaaagta 2520
116 aattctttca aatttttagct aaaagtcctg taataactaa agaataatac acaatctcga 2580
118 ccacggaaaa aaaacacata ataaatttga atttcgaccg cggtagcccg aattcgagct 2640
120 cggtagcccg ggatcttccc gatctagtaa catagatgac accgcgcgcg ataatttatc 2700
122 ctagtttgct cgtctatatt tgttttctat cgcgtattaa atgtataatt gcgggactct 2760
124 aatcataaaa acccatctca taaataacgt catgcattac atgttaatta ttacatgctt 2820
126 aacgtaattc aacagaaaatt atatgataat catcgcaaga ccggcaacag gattcaatct 2880
128 taagaaactt tattgccaaa tgtttgaacg atctgcttcg gatcctctag agccggaaaag 2940
130 tgaaattgac cgatcagagt ttgaagaaaa atttattaca cactttatgt aaagctgaaa 3000
132 aaaacggcct ccgcaggaag ccgttttttt cgttatctga tttttgtaaa ggtctgataa 3060
134 tggccggtt ttttgtaaat cagccagtcg cttgagtaaa gaatccggtc tgaatttctg 3120
136 aagcctgat tatagttaat atccgcttca cgcgatgttc gtccgctttt gcccgggagt 3180
138 ttgccttccc tgtttgagaa gatgtctccg ccgagtcttt tccccggagc gacgtctgca 3240
140 aggttccctt ttgatgccac ccagccgagg gcttggtcct ctgattttgt aatgtaatta 3300
142 tcaggtagct tatgatagt ctgaagataa tccgcaacct cgtcaaacgt gttgataacc 3360
144 ggtaccatgg tagctaattt ctttaagtaa aaactttgat ttgagtgatg atgttgact 3420
146 gttacacttg caccacaagg gcatatatag agcacaagac atacacaaca acttgcaaaa 3480
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152 aaattttgtc tcaccctgat ttcagttatg gaaattacat tatgaagctg tgctagagaa 3660
154 gatgtttatt ctagtccagc caccacctt atgcaagtct gcttttagct tgattcaaaa 3720
156 actgatttaa tttacattgc taaatgtgca tacttcgagc ctatgtcgct ttaattcgag 3780
158 taggatgtat atattagtac ataaaaaatc atgtttgaat catctttcat aaagtgacaa 3840
160 gtcaattgtc ccttcttggt ttggcactata ttcaatctgt taatgcaaat tatccagtta 3900
162 tacttagcta gatatccaat tttgaataaa aatagctctt gattagtaaa ccggatagtg 3960
164 acaaagtcac atatccatca aacttctggt gctcgtggct aagttctgat cgacatgggg 4020
166 ttaaaattta aattgggaca cataaatagc ctattttgtc aaatctcccc atcgaaaaatg 4080
168 acagattgtt acatggaaaa caaaaagtcc tctgatagaa gtcgcaaaat atcacaattt 4140
170 tctatcgaga gatagattga aagaagtgc gggagcggt taactggaac ataacacaat 4200
172 gtctaaatta attgcattcg ctaacaaaaa agtgtattac tctctccggt ccacaataag 4260
174 ttattttttg gccctttttt tatggtccaa aataagttag ttttttagat ttcaaaaatg 4320
176 atttaattat ttttttacta cagtgcctt ggagtaaatg gtgttgagat atgtgttaga 4380
178 aatgtttatg tgaagaaata gtaaaagtta atatgatcaa tttcattgct atttaattgt 4440
180 aaaatgtgaa tttcttaatc tgtgtgaaaa caacaaaaaa atcacttatt gtggaccgga 4500
182 gaaagtatat aaatatatat ttggaagcga ctaaaaaata acttttctca tattatacga 4560
184 acctaaaaac agcatatggt agtttctagg gaatctaat cactaaaatt aataaaaagaa 4620

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186 gcaacaagta tcaatacata tgattttacac cgtcaaacac gaaattcgta aatattttaat 4680
188 ataataaaga attaatccaa atagcctccc accctataac ttaaagctaaa aataaccagc 4740
190 gaatgtatat tatatgcata atttatatat taaatgtgta taatcatgta taatcaatgt 4800
192 ataatctatg tatatggtta gaaaaagtaa acaattaata tagccggcta tttgtgtaaa 4860
194 aatccctaata ataatcgga cggatccccg ggaattccgg ggaagcttag atccatgcag 4920
196 atctgatcat gagcggagaa ttaagggagt cacgttatga ccccgccga tgacgcggga 4980
198 caagccgttt tacgtttgga actgacagaa ccgcaacgat tgaggagcc actcagccgc 5040
200 gggtttctgg agtttaata gctaagcaca tacgtcagaa accattattg cgcgttcaaa 5100
202 agtcgcctaa ggtcactatc agctagcaaa tatttcttgt caaaaatgct ccactgacgt 5160
204 tccataaatt cccctcggtg tccaattaga gtctcatatt cactctcaat ccaaaccatg 5220
206 aaaaaagcag tcattaacgg ggaacaaatc agaagtatca gcgacctcca ccagacattg 5280
208 aaaaaggagc ttgcccttcc ggaatactac ggtgaaaacc tggacgcttt atgggattgt 5340
210 ctgaccggat ggggtggagta cccgctcggt ttggaatgga ggcagtttga acaaagcaag 5400
212 cagctgactg aaaatggcgc cgagagtgtg cttcaggttt tccgtgaagc gaaagcgga 5460
214 ggctgcgaca tcaccatcat actttcttaa tacgatcaat gggagatgaa caatatggaa 5520
216 acacaaaccc gcaagcttgg tctagaggat ccccgatga gctaagctag ctatatcatc 5580
218 aatttatgta ttacacataa tatgcactc agtctttcat ctacggcaat gtaccagctg 5640
220 atataatcag ttattgaaat atttctgaat ttaaacttgc atcaataaat ttatgttttt 5700
222 gcttgacta taatacctga cttgttattt tatcaataaa tatttaaaact atatttcttt 5760
224 caagatggga attaaccatc acaaattgcc ttttcttacc gaccatgtac atcgagctct 5820
226 ccccgatct gcattggagcc atttacaatt gaatatatcc tgccg 5865
229 <210> SEQ ID NO: 2
230 <211> LENGTH: 21
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <221> NAME/KEY: misc_feature
236 <222> LOCATION: (1)..(21)
237 <223> OTHER INFORMATION: primer MDB355
240 <400> SEQUENCE: 2
241 gtaacataga tgacaccgcg c 21
244 <210> SEQ ID NO: 3
245 <211> LENGTH: 21
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <221> NAME/KEY: misc_feature
251 <222> LOCATION: (1)..(21)
252 <223> OTHER INFORMATION: primer MLD008
255 <400> SEQUENCE: 3
256 ataggtggg aggtatttg g 21
259 <210> SEQ ID NO: 4
260 <211> LENGTH: 15
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <221> NAME/KEY: misc_feature
266 <222> LOCATION: (1)..(15)
267 <223> OTHER INFORMATION: primer MDB285

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270 <220> FEATURE:
271 <221> NAME/KEY: variation
272 <222> LOCATION: (6)..(6)
273 <223> OTHER INFORMATION: "s" can be either g or c
276 <220> FEATURE:
277 <221> NAME/KEY: variation
278 <222> LOCATION: (1)..(1)
279 <223> OTHER INFORMATION: "n" can be any nucleotide a, c, t or g
282 <220> FEATURE:
283 <221> NAME/KEY: variation
284 <222> LOCATION: (8)..(8)
285 <223> OTHER INFORMATION: "w" can be either a or t(u)
288 <220> FEATURE:
289 <221> NAME/KEY: variation
290 <222> LOCATION: (12)..(12)
291 <223> OTHER INFORMATION: "w" can be either a or t(u)
294 <220> FEATURE:
295 <221> NAME/KEY: variation
296 <222> LOCATION: (10)..(10)
297 <223> OTHER INFORMATION: "s" can be either g or c
300 <400> SEQUENCE: 4
W--> 301 ntcgastwts gwggtt 15
304 <210> SEQ ID NO: 5
305 <211> LENGTH: 25
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <221> NAME/KEY: misc_feature
311 <222> LOCATION: (1)..(25)
312 <223> OTHER INFORMATION: primer MDB251
315 <400> SEQUENCE: 5
316 ggatcccccg atgagctaag ctagc 25
319 <210> SEQ ID NO: 6
320 <211> LENGTH: 22
321 <212> TYPE: DNA
322 <213> ORGANISM: Artificial Sequence
324 <220> FEATURE:
325 <221> NAME/KEY: misc_feature
326 <222> LOCATION: (1)..(22)
327 <223> OTHER INFORMATION: primer MDB193
330 <400> SEQUENCE: 6
331 tcattctacgg caatgtacca gc 22
334 <210> SEQ ID NO: 7
335 <211> LENGTH: 20
336 <212> TYPE: DNA
337 <213> ORGANISM: Artificial Sequence
339 <220> FEATURE:
340 <221> NAME/KEY: misc_feature
341 <222> LOCATION: (1)..(20)

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342 <223> OTHER INFORMATION: primer MDB258
345 <400> SEQUENCE: 7
346 ctacggcaat gtaccagctg 20
349 <210> SEQ ID NO: 8
350 <211> LENGTH: 415
351 <212> TYPE: DNA
352 <213> ORGANISM: Artificial Sequence
354 <220> FEATURE:
355 <221> NAME/KEY: misc_feature
356 <222> LOCATION: (1)..(415)
357 <223> OTHER INFORMATION: right (5') border flanking region of elite event MS-B2
360 <400> SEQUENCE: 8
361 gtcgagtttg gtgttcatga ttttggtttt tgactcttca ccattacata ttgaaactct 60
363 tacggatgag aacaactcac aagcattaat catgttcata taaatatatg tacattatac 120
365 gtatatatac acgtatacaa atagtagcga agaaatccat gtaaagcagc agggggcacc 180
367 atggtttcaa gtattatata attataatta taattatggt aggatgtaca tggccgataa 240
369 gaaaaggcaa tttgtagatg ttaattccca tcttgaaaga aatatagttt aaatatttat 300
371 tgataaaata acaagtcagg tattatagtc caagcaaaaa cataaattta ttgatgcaag 360
373 tttaaattca gaaatatttc aataactgat tatatcagct ggtacattgc cgtag 415
376 <210> SEQ ID NO: 9
377 <211> LENGTH: 24
378 <212> TYPE: DNA
379 <213> ORGANISM: Artificial Sequence
381 <220> FEATURE:
382 <221> NAME/KEY: misc_feature
383 <222> LOCATION: (1)..(24)
384 <223> OTHER INFORMATION: primer MDB8
387 <400> SEQUENCE: 9
388 tcagaagtat cagcgacctc cacc 24
391 <210> SEQ ID NO: 10
392 <211> LENGTH: 416
393 <212> TYPE: DNA
394 <213> ORGANISM: Artificial Sequence
396 <220> FEATURE:
397 <221> NAME/KEY: misc_feature
398 <222> LOCATION: (1)..(416)
399 <223> OTHER INFORMATION: left (3') border flanking region of the elite event MS-B2
402 <400> SEQUENCE: 10
403 ctacggcaat gtaccagctg atataatcag ttattgaaat atttctgaat ttaaacttgc 60
405 atcaataaaw ttatgttttt gcttggaacta taatacctga cttgttatat tatcaataaa 120
407 tattttaaact atatttcttt caagatggga attaacatct acaaattgcc ttttcttatac 180
409 gaccatgtac atcctaccat aattataatt ataattatat aatactgaaa ccatgggtgcc 240
411 ccctgctgct ttacatggat ttctccgcta ctatttgtat acgtgtatat ataccgtata 300
413 atgtacatat atttatatga acatgattaa tgcttgtagag ttgttctcat ccgtaagagt 360
415 ttcaatatgt aatggtgaag agtcaaaacc caaatcatg aacacccaaa ctcgat 416
418 <210> SEQ ID NO: 11
419 <211> LENGTH: 23
420 <212> TYPE: DNA
421 <213> ORGANISM: Artificial Sequence

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VERIFICATION SUMMARY

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L:22 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1

L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4